

**REMARKS**

Claims 1 - 34 are pending in the present application. Claims 22 – 34 are newly added.

In section 1 of the Office Action, the Examiner rejected claims 1 - 21 under 35 U.S.C. 112, second paragraph, as being indefinite. The specific rejections are addressed in the following several paragraphs.

The Examiner indicated that in claims 1 – 6 it is unclear what is meant by “correlating” or the “correlation” of data. Applicants respectfully submit that these terms are intended to have their common meaning. For example, the Oxford English Dictionary, 2<sup>nd</sup> ed. (Oxford University Press), states:

Correlate, v.

2. To place in or bring into correlation; to establish or indicate the proper relation between.

Applicants wish for the Examiner to note that correlation is described in the specification, for example, at page 3, lines 7 – 14 and page 4, lines 21 – 28. Nevertheless, Applicants amended claims 1 and 5 to clarify the nature of the correlation. However, Applicants respectfully submit that claim 6, when read in light of the specification, needs no further clarification. Claim 6 is further discussed, below.

The Examiner indicated that claims 2 and 4 were confusing. Applicants amended claims 2 and 4 to delete the phrase, “(e.g., SS7 protocol messages).”

The Examiner indicated that claim 3 was unclear. Applicants replaced “fourth monitoring data” with “additional monitoring data”, and replaced “fifth monitoring data” with “further monitoring data”.

The Examiner indicated that claim 7 was unclear. Applicants replaced "further information traversing the selected transmission channel" with "information that is traversing the selected transmission channel."

Applicants respectfully request reconsideration and withdrawal of the section 112 rejection of claims 1 - 21.

In section 3 of the Office Action, the Examiner rejected claims 1 and 11 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,533,007 to Orita et al. (hereinafter "the Orita et al. patent").

Claim 1 provides a method for monitoring an ISDN link. Claim 1 now recites, in relevant part, correlating said first and second monitoring data by selecting some of said second monitoring data in accordance with said first monitoring data, and taking a predetermined action in accordance with said selected second monitoring data.

The Orita et al. patent suggests methods and apparatus to enable ISDN lines to be monitored without interrupting services to subscribers (see col. 6, lines 41 - 43, col. 9, lines 14 - 17, col.10, lines 61 - 65), or to monitor specific channels of specific interfaces (col. 8, lines 6-9, col. 12, lines 25 - 27). The Examiner suggested that the Orita et al. patent describes correlating data at col. 6, lines 1 - 6 and lines 40 - 42. However, Applicants have not found any description of how the data obtained by such monitoring are then used, manipulated or analyzed, whether by correlating them or otherwise. For example, the passage at col. 6, lines 1 - 6 states:

When the CPR 25 receives the LC-NW connection answer message, it outputs to the DLCC 15 a channel interruption request message having, as parameters, the accommodated position and channel number of the subscriber (terminal) to be monitored specified by the command.

and the passage at col. 6, lines 40 - 42 states:

Thus, the monitor equipment 28 can monitor the D and B channels of the subscriber being considered without the exchange services.

Applicants do not see that either of these passages even mention data correlation, much less, correlating said first and second monitoring data by selecting some of said second monitoring data in accordance with said first monitoring data, and taking a predetermined action in accordance with said selected second monitoring data, as recited in claim 1. Accordingly, the Orita et al. patent does not anticipate claim 1.

Claim 11 depends from claim 1. Thus, the Orita et al. patent does not anticipate claim 1.

Applicants respectfully request reconsideration and withdrawal of the section 102(b) rejection of claims 1 and 11.

In section 5 of the Office Action, claims 5, 6, 15 and 16 were rejected under 35 U.S.C. 103(a) as being unpatentable over the Orita et al. patent.

Claim 5 provides for an apparatus for monitoring an ISDN link. The apparatus includes, in relevant part, correlation apparatus coupled to said first and second equipment to receive and correlate said first and second monitoring data by selecting some of said second monitoring data in accordance with said first monitoring data, and taking a predetermined action in accordance with said selected second monitoring data. As explained above in support of claim 1, the Orita et al. patent neither describes nor suggests such correlation. Thus, claim 5 is patentable over the Orita et al. patent.

Claim 6 provides for an apparatus for monitoring an ISDN link. The apparatus includes, in relevant part, (a) first equipment for monitoring subscriber signalling messages on an ISDN D channel to derive first monitoring data, and (b) second equipment for monitoring additional signalling messages on a signalling link in a

telecommunications network coupled to the ISDN link, to derive second monitoring data. Fig. 3 shows a system that includes an exemplary implementation of such an apparatus. The system of Fig. 3 includes an ISDN link (e.g., ISDN D channel and ISDN B channels) and a telecommunications network (e.g., STP, SS7 line, transmission trunk, and digital switch) coupled to the ISDN link. There is first equipment (e.g., a probe coupled to the ISDN link) for monitoring subscriber signalling messages on the ISDN D channel to derive first monitoring data, and second equipment (e.g., a probe coupled to the SS7 line) for monitoring additional signalling messages on a signalling link in a telecommunications network coupled to the ISDN link.

The Orita et al. patent appears to only describe equipment of an ISDN link. For example, with reference to Fig. 1 of the Orita et al. patent, there is an ISDN link, but **there does not appear to be any representation of a telecommunications network coupled to the ISDN link.** The “networks” such as LC-NW 16 and CPR-NW 24 included in Fig.1 of the Orita et al patent are clearly part of the ISDN system itself (note for example the B-ch and D-ch connections between the DLCC 15 and the LC-NW 16). Consequently, the Orita et al. patent does not describe or suggest second equipment for monitoring additional signalling messages **on a signalling link in a telecommunications network coupled to the ISDN link**, to derive second monitoring data, as recited in claim 6. Thus, Applicants respectfully submit that claim 6 is patentable over the Orita et al. patent.

Claim 15 depends from claim 5, and claim 16 depends from claim 6. Thus, claims 15 and 16 are also patentable over the Orita et al. patent.

Applicants respectfully request reconsideration and withdrawal of the section 103(a) rejection of claims 5, 6, 15 and 16.

Applicants have herein amended claims 1 and 5 for purposes of clarity, and 2 – 4, 6 and 7 for purposes of form. Applicants do not intend for these amendments to narrow the

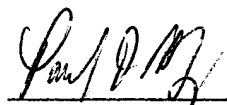
meaning of any term of the claims, and as such, applicants submit that the Doctrine of Equivalents is available for all of the elements of all of the claims.

Applicants have added claims 22 - 34 to even further provide the claim coverage that Applicants appear to deserve based on the prior art that was cited by the Examiner. A favorable consideration that also results in the allowance of claims 22 - 34 is earnestly solicited.

In view of the foregoing, Applicants respectfully submit that all claims presented in this application patentably distinguish over the prior art. Accordingly, Applicants respectfully request favorable consideration and that this application be passed to allowance.

Respectfully submitted,

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Date

  
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## VERSION MARKED TO SHOW CHANGES MADE

**IN THE CLAIMS**

Please amend the claims below to read as indicated herein.

1. (Amended) A method of monitoring an ISDN link, comprising the steps of:  
monitoring at a first location subscriber signalling messages on an ISDN D channel  
to derive first monitoring data;  
monitoring at said first location telecommunications traffic traversing ISDN B  
channels associated with said ISDN D channel to derive second monitoring  
data; and  
correlating said first and second monitoring data by selecting some of said second  
monitoring data in accordance with said first monitoring data, and taking a  
predetermined action in accordance with said selected second monitoring  
data.

2. (Amended) A method according to claim 1, including the steps of:  
monitoring additional signalling messages ~~(e.g. SS7 protocol messages)~~ on a  
signalling link in a telecommunications network coupled to said ISDN link, to  
derive third monitoring data; and  
correlating said third monitoring data with at least one of said first and second  
monitoring data.

3. (Amended) A method according to claim 1, including the steps of:  
monitoring at a second location subscriber signalling messages on an ISDN D  
channel to derive ~~fourth~~ additional monitoring data;  
monitoring at said second location telecommunications traffic traversing ISDN B  
channels associated with said ISDN D channel to derive ~~fifth~~ further  
monitoring data; and  
correlating said ~~fourth and fifth~~ additional and further monitoring data with said first  
and second monitoring data.

## VERSION MARKED TO SHOW CHANGES MADE

4. (Amended) A method of monitoring an ISDN link, comprising the steps of:  
monitoring subscriber signalling messages on an ISDN D channel to derive first monitoring data;  
monitoring additional signalling messages ~~(e.g. SS7 protocol messages)~~ on a signalling link in a telecommunications network coupled to said ISDN link, to derive second monitoring data; and  
correlating said first and second monitoring data.
5. (Amended) ~~Apparatus~~ An apparatus for monitoring an ISDN link, comprising:  
first equipment at a first location for monitoring subscriber signalling messages on an ISDN D channel to derive first monitoring data;  
second equipment at said first location for monitoring telecommunications traffic traversing ISDN B channels associated with said ISDN D channel to derive second monitoring data; and  
correlation apparatus coupled to said first and second equipment to receive and correlate said first and second monitoring data by selecting some of said second monitoring data in accordance with said first monitoring data, and taking a predetermined action in accordance with said selected second monitoring data.
6. (Amended) ~~Apparatus~~ An apparatus for monitoring an ISDN link, comprising:  
first equipment for monitoring subscriber signalling messages on an ISDN D channel to derive first monitoring data;  
second equipment for monitoring additional signalling messages ~~(e.g. SS7 protocol messages)~~ on a signalling link in a telecommunications network coupled to said ISDN link, to derive second monitoring data; and  
correlation apparatus coupled to said first and second equipment to receive and correlate said first and second monitoring data.

## VERSION MARKED TO SHOW CHANGES MADE

7. (Amended) A method of monitoring a telecommunications system having transmission channels and an associated signalling channel, comprising the steps of:
- monitoring at a first location signalling messages on the signalling channel to derive first monitoring data;
  - selecting a transmission channel identified by reference to information contained in said first monitoring data;
  - monitoring at said first location telecommunications traffic traversing the selected transmission channel to derive second monitoring data; and
  - extracting ~~further~~ information that is traversing the selected transmission channel by reference to information contained in said second monitoring data.